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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,398	10/12/2005	Hannu Mikkonen	0365-0627PUS1	1581

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EXAMINER
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LAU, JONATHAN S

ART UNIT	PAPER NUMBER
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1623

NOTIFICATION DATE	DELIVERY MODE
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03/05/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/532,398	<b>Applicant(s)</b> MIKKONEN ET AL.	
	<b>Examiner</b> Jonathan S. Lau	<b>Art Unit</b> 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9 pgs / 22Apr2005, 22Jul2005</u> .                            | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This application is the national stage entry of PCT/FI03/00796, filed 24 Oct 2003; and claims benefit of foreign priority document FINLAND 20021904, filed 25 Oct 2002; currently an English language translation of this foreign priority document has not been filed.

Claims 1-21 are pending in the current application. Claims 19-21, drawn to non-elected inventions, are withdrawn. Claims 1-18 are examined on the merits herein.

### ***Election/Restrictions***

Applicant's election without traverse of the invention of Group I, claims 1-18, in the reply filed on 08 Feb 2008 is acknowledged.

Claims 19-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 08 Feb 2008.

### ***Oath/Declaration***

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The oath does not identify the citizenship of each inventor according to 37 CFR 1.497.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities: The layout of the specification as per 37 CFR 1.77(b) is as provided above. In the specification as filed, it is unclear what text corresponds to which section. For example, it is unclear

what text corresponds to section (g) Brief Summary of the Invention and what text corresponds to section (i) Detailed Description of the Invention.

Appropriate correction is required.

### ***Claim Objections***

Claim 15 is objected to because of the following informalities: the misspelling of methoxy and ethoxy in line 3. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 is drawn to a starch **derivative**.

The specification discloses chemicals, such as oxidized starch or a starch ether (page 7, lines 25-27) which meet the written description and enablement provisions of 35 USC 112, first paragraph. However, claims 1 is directed to encompass starch derivatives which only correspond in some undefined way to specifically instantly disclosed chemicals. None of these derivatives meet the written description provision of

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35 USC § 112, first paragraph, due to lacking chemical structural information for what they are and because chemical derivatives are highly variant and encompass a myriad of possibilities. The specification provides insufficient written description to support the genus encompassed by the claim, and no limiting definition of a derivative is provided.

Vas-Cath Inc. v. Mahurkar, 19 USPQ2d 1111, makes clear that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed*." (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See Vas-Cath at page 1116.)

With the exception of the above specifically disclosed chemical structures, the skilled artisan cannot envision the detailed chemical structure of the encompassed derivatives, analogs, etc., regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it. The chemical structure itself is required. See Fiers v. Revel, 25 USPQ2d 1601, 1606 (CAFC 1993) and Amgen Inc. V. Chugai Pharmaceutical Co. Ltd., 18 USPQ2d 1016. In Fiddes v. Baird, 30 USPQ2d 1481, 1483, claims directed to mammalian FGF's were found unpatentable due to lack of written description for the broad class. The specification provided only the bovine sequence. Finally, University of California v. Eli Lilly and Co., 43 USPQ2d 1398, 1404, 1405 held that:

...To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can

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clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) ("[T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966.

Therefore, only the structurally defined chemical compounds, but not the full breadth of the claims, meet the written description provision of 35 USC § 112, first paragraph. The species specifically disclosed are not representative of the genus because the genus is highly variant. Applicant is reminded that Vas-Cath makes clear that the written description provision of 35 USC § 112 is severable from its enablement provision. (See Vas-Cath at page 1115.)

The court of *In re Curtis* held that "a patentee will not be deemed to have invented species sufficient to constitute the genus by virtue of having disclosed a single species when... the evidence indicates ordinary artisans could not predict the operability ... of any other species." (see *In re Curtis* 354 F.3d 1347, 69 USPQ2d 1274, Fed. Cir. 2004). The court of *Noelle v. Lederman* also pointed out that generic claim to anti-CD40CR Mabs lacked written description support because there was no description of anti-human or other species Mabs, and no description of human CD40CR antigen. The court further pointed out that attempt to "define an unknown by its binding affinity to another unknown" failed. See 355 F.3d 1343, 69 USPQ2d 1508, Fed. Cir. 2004.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 7, 9, 10, 14, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation 105 to 200 °C, and the claim also recites 110 to 190 °C which is the narrower statement of the range/limitation. Claim 7 recites the broad recitation 0.01 to 20 weight-%, and the claim also recites 0.1 to 10 weight-% which is the narrower statement of the range/limitation; and the broad recitation 0.0005 to 5 mole-%, and the claim also recites 0.002 to 2.0 mole-% and 0.015 to 0.3 mole-% which are the narrower statement of the range/limitation. Claim 9 recites the broad recitation less than 30% of the dry matter content and the claim also recites preferably approx. 5 to 25% which is



the narrower statement of the range/limitation. Claim 14 recites the broad recitation 1 to 5 hydroxyl groups, and the claim also recites 1 to 3 hydroxyl groups which is the narrower statement of the range/limitation.

Claim 9 recites "such that the total amount of liquid will be less than 30%, preferably approx. 5 to 25%, of the dry matter content" in lines 3-5, however no guidance is given for how this percentage is determined. The specification recites the same percentage on page 11, lines 4-5. For the purpose of furthering prosecution, the percentage has been interpreted as a weight percentage.

The term "where necessary" in claim 10 is a relative term which renders the claim indefinite. The term "where necessary" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claim is indefinite because no guidance is given for the criteria for ascertaining when granulation is necessary, and the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. The term "where necessary" implies a standard for judging when it is necessary that is not implied with terms such as "optionally".

Regarding claims 16 and 17, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Claim 16 recites, for example, "a strong mineral acid, such as sulphuric acid..." Claim 17 recites, for example, "a phosphorous-containing acid, such as phosphoric acid..."

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 10-16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Roth (US Patent 3,346,558, issued 10 Oct 1967, cited in PTO-892).

Roth discloses a process for preparing polyol-glycosides comprising reacting starch, polyol and acid at elevated temperature and pressure (column 1, lines 10-15) using a screw-type extruder (column 2, lines 18-20), addressing instant claims 1-3. Roth discloses the barrel of the extruder constitutes two zones for heating (column 2, lines 22-25 and column 3, lines 72-75), addressing instant claim 4. Roth discloses the temperature in the range of at least 170 °C (column 1, lines 20-21), addressing instant claim 5. Roth discloses starch, polyol and acid mixture is subjected to intense mechanical working or shearing, or compacted (column 3, lines 64-67), addressing instant claim 10. Roth discloses the mixture fed into a conventional one-screw type extruder (column 4, lines 19-21), addressing instant claim 11. Roth discloses the use of modified starched such starches modified by enzyme treatment, by oxidation with alkaline hypochlorite, or by treatment with an acid, and starch derivatives such as starch acetates, carboxymethyl starch, carboxyethyl starch, methyl starch, hydroxyethyl starch, and hydroxypropyl starch (column 2, lines 37-43), addressing instant claims 12 and 13.

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Roth discloses the use of ethylene glycol, 1,2-propylene glycol, diethylene glycol, triethylene glycol, tetraethylene glycol, hexylene glycol, glycerol, 1,1,1-trimethylolpropane, 1,1,1-trimethylolethane, 1,2,6-hexanetriol, pentaerythritol, and sorbitol (column 2, lines 60-67), addressing instant claims 14 and 15. Roth discloses the use of either organic acid catalysts such *o*-, *m*-, or *p*-toluenesulfonic acid; benzenesulfonic acid; *o*-, *m*-, *p*-bromobenzenesulfonic acid; ethanesulfonic acid; and mineral acid catalysts sulfuric acid and hydrochloric acid (column 3, lines 30-35), addressing instant claim 16. Acid catalysts work by protonating the substrate, or forming a chemical bond between the catalyst proton and the substrate, in this case a transglycosylation product, therefore an acid catalyst inherently addresses instant claim 18.

Claims 1-5, 14-16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Carr (Journal of Applied Polymer Science, 1991, 42, p45-53, provided by Applicant in IDS mailed 22 Apr 2005).

Carr discloses a starch-derived glycol and glycerol glucoside prepared using a twin-screw extruder and an acid catalyst (page 45, left column, lines 1-4 and right column, lines 13-17), addressing instant claims 1-3. Carr discloses starch reacted with ethylene glycol or glycerol and sulfuric acid (page 46, left column, Materials), addressing instant claims 14-16. Acid catalysts work by protonating the substrate, or forming a chemical bond between the catalyst proton and the substrate, in this case a transglycosylation product, therefore an acid catalyst inherently addresses instant claim

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18. Carr discloses the extrusion devices has at least two separately adjustable heating zones (page 46, right column, lines 1-11), adjusted to 125 °C and 160 °C (page 47, left column, lines 12-14), Addressing instant claims 4 and 5.

Claims 1-5, 10, 11, 14-16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Subramanian and Hanna (Cereal Chem., 1996, 73(2), p179-184, provided by Applicant on IDS mailed 22 Apr 2005).

Subramanian and Hanna discloses the reaction of starch, ethylene glycol and sulfuric acid extruded with a twin-screw extruder (page 179, abstract), addressing instant claims 1-3 and 14-16. Subramanian and Hanna discloses the extruder device has 4 separately adjustable heating zones adjusted to 130 °C, 140 °C, and 160-180 °C (page 181, left column, lines 28-33), addressing instant claims 4 and 5. Subramanian and Hanna discloses the starch, ethylene glycol and sulfuric acid mixed in a Hobart mixer, or compacted (page 181, left column, lines 23-27), addressing instant claim 10. This pre-mixture is fed into a twin-screw extruder (page 181, left column, figure 5), addressing instant claim 11. Acid catalysts work by protonating the substrate, or forming a chemical bond between the catalyst proton and the substrate, in this case a transglycosylation product, therefore an acid catalyst inherently addresses instant claim 18.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 6-9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth (US Patent 3,346,558, issued 10 Oct 1967, cited in PTO-892) in view of Leitheiser et al. (Ind. Eng. Chem. Res. Dev., 1966, 5(3), p276-282, cited in PTO-892).

Roth discloses as above. Roth discloses the alcohol used in a concentration of 0.10 to 2.0 equivalents per gram mole of starch (column 3, lines 1-2). A mixture of 0.1 mole of ethylene glycol (62 g/mol) and 1.0 mole of starch (162 g/mol) is approximately 4 wt-% and approximately 9 mole-%. To one significant digit approximately 9 mole-% is approximately 5 mole-%, addressing instant claim 7. Roth discloses the mixture of starch, polyhydric alcohol, and acid mixed together and dried after mixing (column 3, lines 53-55) to have a superficially dry mixture (column 4, line 40-43). As calculated

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above, the liquid reagent of alcohol and acid are approximately 4 wt-%, addressing instant claim 9. Roth discloses the starch, polyhydric alcohol, and acid composition is mixed and converted into a fluid mass in the first zone of the reactor (column 3, lines 65-72), describing a fluidized-bed type of a mixing device to produce the pre-mixture, addressing instant claim 8.

Roth does not specifically disclose prior to performing the transglycosylation reaction the alkanol and acidic substance are mixed together and an aerosol is produced from this mixture (instant claim 6). Roth does not specifically disclose the acidic catalyst used is a phosphorous-containing acid (instant claim 17).

Leitheiser et al. teaches mixing the alkanol and acidic substance prior to performing a transglycosylation reaction and heating the mixture to 250 °F under reduced pressure (page 277, left column, lines 30-34), which would inherently produce some of the of the mixture in the form of an aerosol. Leitheiser et al. teaches the use of an acidic catalyst of sulfuric acid and phosphoric acid, a phosphorous-containing acid (page 277, left column, lines 30-34). Leitheiser et al. teaches that mixing the alkanol and acidic substance prior to performing a transglycosylation reaction avoids the gelation of mixing starch, polyhydric alcohol, and acid that makes good heat transfer difficult (page 277, left column, lines 10-15).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the process for preparing polyol-glycosides comprising reacting starch, polyol and acid using a screw-type extruder disclosed by Roth with the teaching of mixing the alkanol and acidic substance prior to performing a transglycosylation

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reaction and an acidic catalyst of sulfuric acid and phosphoric acid of Leitheiser et al. Leitheiser et al. teaches that mixing the alkanol and acidic substance prior to performing a transglycosylation reaction avoids the gelation of mixing starch, polyhydric alcohol, and acid that makes good heat transfer difficult. Roth also teaches that adding the starch to an alkanol and acid composition eliminates the gel state (column 1, lines 46-50). Although Roth does not specifically disclose the use of a phosphorous-containing acid, Roth discloses any strong mineral acid can be employed (column 3, lines 35-36). Therefore one of ordinary skill in the art at the time of the invention would be motivated to combine the invention of Roth with the teaching of Leitheiser et al. based on the suggestions of both Roth and Leitheiser et al.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 12-14 and 18 are provisionally rejected on the ground of nonstatutory double patenting over claim 14 of copending Application No. 10/504,296. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Claim 14 of copending Application No. 10/504,296 recites "A method of preparing transglycosylation products, comprising: reacting an ester or ether derivative of starch at acid conditions with an alkanol containing 1 - 6 hydroxyl groups, and recovering the reaction product." Instant claims 12 and 13 are drawn to a method of transglycosylation of an ester or ether derivative of starch at acid conditions with an alkanol containing 1 - 6 hydroxyl groups. Paragraph 62 of PGPub 2005/0107603 from Application No. 10/504,296 discloses the components mixed together and reacted in an extruder. Paragraph 47 of PGPub 2005/0107603 from Application No. 10/504,296 discloses the use of alcohols having 1-6 carbon atoms and 1 to 5, preferably 1 to 3 hydroxyl groups, addressing instant claim 14. Acid catalysts work by protonating the substrate, or forming a chemical bond between the catalyst proton and the substrate, in this case a transglycosylation product, therefore an acid catalyst inherently addresses instant claim 18.



Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

### ***Conclusion***

No claim is found to be allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan S. Lau whose telephone number is 571-270-3531. The examiner can normally be reached on Monday - Thursday, 9 am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jonathan S. Lau  
Patent Examiner  
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